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10/718,826	04/16/2004	Stephen A. Loughran	200309756-1	1335

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EXAMINER

BAHTA, KIDEST

ART UNIT PAPER NUMBER

2125

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,826

Applicant(s)

LOUGHRAN ET AL.

Examiner

Kidest Bahta

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-8, 10-14 and 16-30 is/are rejected.
- 7) ☒ Claim(s) 9, 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/16/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7, 11-14 and 16-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frazer et al. (U.S. patent 6,105,520) in view of Mata et al. (U.S. Pub. 2003/0225474).

Regarding claims 1-4, 7, 16-17, 23-24, Frazer a scheduling system, comprising: an interface configured to receive input data and display output data (column 6, lines 2-9); and a device providing for generating the output data from the input data (Fig. 1, element 61); wherein said interface selectively provides for a queue-list view and a calendar view of said output data (Fig. 4N); wherein said input data includes: a plurality of machine characteristics (10a...10n), comprising, a machine maintenance characteristics (column 8, line 58); a machine capacity characteristics (column 7, lines 5-7); and a plurality of job characteristics comprising: a job input, a job output and a job schedule characteristic (column 6, lines 2-9); a plurality of machine characteristics related to a fabrication machines (10a...10N); a plurality of job characteristics include a design (customer order), and wherein the fabrication machine produces a physical output using the design ( column 3, lines 37-40); the input data includes an availability

of an operator on at least one of: a weekend', a holiday', an extra shift; and an intra-shift break (column 7, lines 57-63, column 8, lines 57)

In addition, Frazer discloses Frazer discloses that A system for scheduling jobs on a machine, comprising: a means for receiving a plurality of input attributes and to display a plurality of output attributes in a calendar-view format (Fig. 1, column 6, lines 2-9; Fig. 4N), wherein said input attributes include a job characteristic (61, customer order), a machine characteristic (10a... 10n, quilting machines), and an organization characteristic (56, interactive scheduling module), wherein said output attributes include a start time associated with a job identifier (column 11, lines 53-58) and a means for generating a schedule including said output attributes, wherein said output attributes are generated from said input attributes (Fig. 1; column 6, lines 2-9).

Regarding claims 11-14, Frazer discloses The system of claim 1, wherein said interface automatically creates a warning when a job will not be completed before a deadline associated with said job (Fig. 3P, i.e., show user all machines w/data...is user done); a reservation is transmitted through said interface before a design associated with said reservation is complete (Fig. 3N and Fig. 3O); the interface is configured to capture at least one of: a deadline', a priority value; and a user affiliation (column 16, lines 2-12); a present day job schedule can be viewed substantially simultaneously with a future day job schedule without transmitting an instruction to the interface after the present day job schedule is viewed (Fig. 4Q, Fig. 4R).

Regarding claims 18-19, 21-22, 25-30, Frazer discloses a means for making said inputted resource accessible to (Fig. 1) the means for producing said physical output

Art Unit: 2125

(column 6, lines 2-9); wherein said means for receiving said plurality of input attributes is further configured to: transmit said design to said means for producing said physical output (column 3, line 63-column 4, line 5); access availability attributes relating to an operator 9column 4, lines 6-14); and set at least one of: a deadline (column 16, lines 10-12); a priority value; a scheduling rule; and an advance reservation for an unfinished design (Fig. Fig. 4N); adapting the calendar-view interface to automatically access information that can be displayed on a queue-list interface (Fig. 4N, i.e., the report tells the total yardage of quilting this schedule produce); and programming a scheduling heuristic to facilitate an automated schedule modification performed on a job input (column 5, lines 55-59); the job scheduling application to prohibiting the setting of at least one of: a priority value that exceeds the authorization of a particular user; an interruption to a job that is currently in process; a disruption to the maintenance schedule of a machine (column 8, lines 44-65); and an advance reservation that is outside a time frame of time that can be scheduled; the job scheduling application is hosted by an office workflow system (50).

Furthermore, Frazer discloses associating the new job with a build wherein the build is associated with *at least one of*: a refill period', a plurality of jobs; a build tray; and a build tray capacity (column 5, lines 54-55); no new builds are scheduled to begin during a period of operator absence (column 8, lines 14-9); automatically adjusting a build start time to delay a required refill until an operator is scheduled to be available (column 15, lines 52-65); further automatically adjusting a build start time to delay a required refill until an operator is scheduled to be available (column 15, line 60 -column

16, line 2); automatically adjusting a run rate such that a required refill is delayed until an operator is present (column 8, lines 50-61); scheduling a new job on the machine includes receiving a plurality of job characteristics relating to the new job, accessing a plurality of machine characteristics relating to the machine on which the new job is being scheduled (column 8, lines 2-26); and retrieving a plurality of organization characteristics relating to operator availability (column 7, lines 55-63).

However, Frazer fails to disclose the interface provides for toggling between the queue-list view and a calendar view. Mata discloses the interface provides for toggling between the queue-list view and a calendar view (Fig. 3A).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Frazer with the teachings of Mata in order provide a easy and quick view.

3. Claims 5- 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frazer et al. (U.S. patent 6,105,520) in view of Mata et al. (U.S. Pub. 2003/0225474) as applied to claims 1 and 19 above, and further in view of Zey et al. (U.S. patent 6,611,275).

Regarding claims 5-6 and 20, Frazer and Mata disclose the limitations of claims 1 and 19, as show above in Par. 2, however; Frazer and Mata fail to disclose the machine capacity characteristic is a build tray capacity, wherein a first color is used on said interface to indicate when said build tray capacity is substantially empty and wherein a second color is used on said interface to indicate when said build tray is

substantially full; and the interface uses a third color to indicate at least one of: a tentative reservation; an unfinished design reservation; a high priority reservation; a low priority reservation; and a maintenance event; defining a color-coded scheme for displaying at least one of: a priority value for a job; a utilization metric for a build on a machine a job that will not be completed until after an associated deadline a job reservation that is not associated with a completed design a indicator wherein said indicator is at least one of a resource consumption indicator a status indicator, and an operator intervention indicator.

Zey discloses the machine capacity characteristic is a build tray capacity, wherein a first color is used on said interface to indicate when said build tray capacity is substantially empty and wherein a second color is used on said interface to indicate when said build tray is substantially full (Fig. 11); the interface uses a third color to indicate at least one of: a tentative reservation; an unfinished design reservation; a high priority reservation; a low priority reservation; and a maintenance event (column 6, lines 7-47); defining a color-coded scheme for displaying at least one of: a priority value for a job; a utilization metric for a build on a machine a job that will not be completed until after an associated deadline a job reservation that is not associated with a completed design a indicator wherein said indicator is at least one of a resource consumption indicator a status indicator, and an operator intervention indicator (Fig. 11).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teaching of Frazer and Mata with the teachings of

Zey in order provide a maintenance information and status information with a change of color.

5. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frazer et al. (U.S. patent 6,105,520) in view of Mata et al. (U.S. Pub. 2003/0225474) as applied to claim 1 above, and further in view of Hohkibara et al. (U.S. Patent 6,438,436).

Regarding claims 8 and 10, Frazer and Mata disclose the limitation of claim 1, as show above in Par. 2, however; Frazer and Mata fail to disclose a scheduling heuristic and a plurality of jobs described by said plurality of job characteristics, said plurality of jobs including a first job and a second job, at least one of: (a) a shorter- than-average job and (b) a longer-than-average job, wherein said scheduling heuristic determines a job schedule, wherein said first job is a longer-than- average job and wherein said second job is at least one of: (c) longer in duration than said first job; and (d) a shorter- than average-job and the interface provides for a drag-drop of a CAD file into an existing reservation.

Hohkibara discloses a scheduling heuristic and a plurality of jobs described by said plurality of job characteristics, said plurality of jobs including a first job and a second job, at least one of: (a) a shorter- than-average job and (b) a longer-than-average job, wherein said scheduling heuristic determines a job schedule, wherein said first job is a longer-than- average job and wherein said second job is at least one of: (c) longer in duration than said first job; and (d) a shorter-than average-job (Fig. 2 and Fig. 3) and the interface provides for a drag-drop of a CAD file into an existing reservation (column 6, lines 48-59).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Frazer and Mata with the teachings of Hohkibara in order provide a production scheduling management system and method that enable preparations for production to be accomplished with high efficiency, and properly carry out operations according to schedules.

***Allowable Subject Matter***

6. Claims 9 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 16, 19 and 24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed Kidest Bahta whose telephone number is 571-272-3737. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2125

Information regarding the status of an application may be obtained from the Patent Application information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAG system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kidest Bahta



June 1, 2005